***EE 491 WEEKLY REPORT 4 Date: 10/4/16-10/10/16***

***Group number: 24***

***Project title: Ultrasound Water Purification***

***Client &/Advisor: Prof Bigelow***

***Team Members/Role:***

***Jacob Bernhard/Team leader***

***Yuhao Fu/Team Communication Leader***

***Parker Oltrogge/Team Webmaster***

***Subin Mao/Team Key Concept Holder***

***Xiyuan Wang/Team member***

***Tao Wu/ Team member***

* **Weekly Summary**

This week, we had a meeting with Prof. Bigelow to talk about more detailed plan for the project. Also, we solved the problem from last week.

* **Past week accomplishments (please describe as what was done, by whom, when)**
* Had meeting with Prof. Bigelow to discussed about more detailed plan for project.
* **Pending issues (if applicable)**
* Looking for the spare transducers or take apart the humidifier
* Go through the class to purchase “the plug into the wall humidifier” which is similar to a float or a valve to fill the basin
* Impedance Measurement “Network Analyzer”
* Design Matching network to get rid of reflection
* **Individual contributions**

|  |  |  |  |
| --- | --- | --- | --- |
| **NAME** | **Individual Contributions** | **Hours this week** | **HOURS**  **cumulative** |
| **Jacob Bernhard** | Meeting and Research | 3 | 11 |
| **Yuhao**  **Fu** | Research | 2 | 11 |
| **Parker Oltrogge** | Research | 2 | 11 |
| **Subin Mao** | Meeting and Research | 3 | 11 |
| **Xiyuan Wang** | Meeting and Research | 3 | 11 |
| **Tao**  **Wu** | Meeting and Research | 3 | 11 |

* **Comments and extended discussion**

We have a better understanding on the direction of the projects. Furthermore, we made the plan for the coming week.

* **Plan for coming week**
* Outline of the project:
* Transducer
* Acoustic values for purifications
* Filter: Microfluidic filters
* Target:
* Find most common bacteria in water (tap water culture) (or E. Coli )
* Find the frequencies that we need to purify
* Buy the humidifier (pick one out and show Prof. Bigelow)
* Build the basin for the transducer to hold water. The design needs to be in a CAD style so we can have it built.